



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION 5 CHICAGO REGIONAL LABORATORY**  
**536 SOUTH CLARK STREET**  
**CHICAGO, ILLINOIS 60605**

**Date:** 8/12/2010

**Subject:** Review of Region 5 Data for R06 Deep Water Chalmette

**From:** David Schroeder  
Region 5 Chicago Regional Laboratory

**To:** Region 6, US EPA  
10625 Fallstone Road  
Houston, TX 77099

The data being transmitted under this cover memo successfully passed CRL's internal data review procedures as documented in our current Quality Management Plan (QMP) and appropriate Standard Operating Procedures (SOPs). Please be aware that CRL does not perform data validation which is based on your data quality objectives. This function must be performed independently of the laboratory generating the data.

Results in this report represent only the samples analyzed.

Please have the U.S. EPA Project Manager/Officer call the CRL Sample Coordinator at (312) 353-7444 for any comments or questions.

**Attached are Results for: R06 Deep Water Chalmette**

\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
Data Management Coordinator and Date Received

Date Transmitted: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Analyses included in this report:**

RAM-DOSS



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Chalmette  
Project Number: T0033-100402-20100808-03  
Project Manager: Kristie Warr

**Reported:**  
Aug-12-10 11:36

**ANALYSIS CASE NARRATIVE**  
**Analyst: David Schroeder (312) 353-3100**

**General Information**

Twenty-eight samples were received by the Chicago Regional Laboratory and prepared for dioctyl sulfosuccinate (DOSS) analysis on August 10, 2010. The sample sets from Chalmette, LA were insufficient to perform matrix spike and matrix spike duplicate preparations. Kristie Warr was emailed about this sampling issue. The samples were received at or less than 6°C.

**Sample Analysis and Results**

Analysis of dioctyl sulfosuccinate in water by LC/MS/MS was carried out using CRL Region 5 Regional Analytical Method for Dioctyl Sulfosuccinate (RAM-DOSS, CAS 577-11-7) in Sea Water by Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS).

The T007-1332-100806-SW-03-1 sample, collected August 6, 2010 at 12:05 near Grand Isle, LA, contained 24.0 ppb dioctyl sulfosuccinate anion. The presence of DOSS was confirmed by the detection of the confirmatory ion. After the official analysis, the sample preparation was subsampled and analyzed, August 11, 2010. This analysis further confirmed the presence of the DOSS in the filtered sample.

Samples shipped from the samplers, with the same sample number, were not duplicates of one solution. The samples shipped as duplicates were consecutively collected co-located samples, rather than duplicates of one sample. One T007-1332-100806-SW-03-1 co-located sample was prepared and analyzed the day after the official analysis. The DOSS result for the co-located sample was less than the reporting limit (20 ppb) and method detection verification limit (6 ppb). The difference in response may be due in part to the peristaltic-pump consecutive sample collections.

DOSS is surface active. The surface activity results in DOSS adhering to many materials. Sampling techniques that expose samples to materials other than the sample container may reduce DOSS concentration in samples. Sampling techniques such as peristaltic pumping expose the sample to large surface areas compared to sample volume. DOSS association with peristaltic tubing materials likely result in bias low DOSS concentrations in laboratory samples.

The 1008015, 1008016, 1008017 and 1008018 supporting data are stored with 1008014.

**Quality Control**

All quality control criteria not mentioned met acceptance limits stated in the method.



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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T005-2312-100808-SW-1	1008016-01	Water	Aug-08-10 11:18	Aug-10-10 09:02
T005-2316-100808-SW-1	1008016-02	Water	Aug-08-10 12:08	Aug-10-10 09:02
T005-2322-100808-SW-1	1008016-03	Water	Aug-08-10 10:20	Aug-10-10 09:02



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**Analysis by LC MS MS**

**US EPA Region 5 Chicago Regional Laboratory**

T005-2312-100808-SW-1 (1008016-01) Water Sampled: Aug-08-10 11:18 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
diocetyl sulfosuccinate	U	U		20.0	ug/L	1	B100842	Aug-10-10	Aug-11-10

Surrogate: DOSS-D34 192 110 % 50-150 " " "

T005-2316-100808-SW-1 (1008016-02) Water Sampled: Aug-08-10 12:08 Received: Aug-10-10 09:02

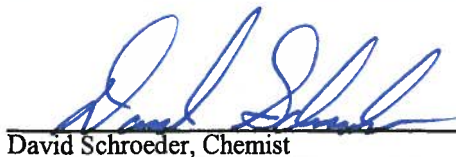
Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
diocetyl sulfosuccinate	U	U		20.0	ug/L	1	B100842	Aug-10-10	Aug-11-10

Surrogate: DOSS-D34 193 112 % 50-150 " " "

T005-2322-100808-SW-1 (1008016-03) Water Sampled: Aug-08-10 10:20 Received: Aug-10-10 09:02

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
diocetyl sulfosuccinate	U	U		20.0	ug/L	1	B100842	Aug-10-10	Aug-11-10

Surrogate: DOSS-D34 203 111 % 50-150 " " "

  
David Schroeder, Chemist



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Reported:  
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## Analysis by LC MS MS - Quality Control US EPA Region 5 Chicago Regional Laboratory

### Batch B100842 - \*\*\* DEFAULT PREP \*\*\*

#### Blank (B100842-BLK1)

Prepared & Analyzed: Aug-10-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	U	U		20.0	ug/L						

Surrogate: DOSS-D34 232 " 206.2 112 50-150

#### LCS (B100842-BS1)

Prepared & Analyzed: Aug-10-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	194			20.0	ug/L	200.0		97.1	50-150		

Surrogate: DOSS-D34 183 " 200.0 91.3 50-150

#### LCS Dup (B100842-BSD1)

Prepared: Aug-10-10 Analyzed: Aug-11-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	196			20.0	ug/L	200.0		98.1	50-150	1.05	30

Surrogate: DOSS-D34 179 " 200.0 89.4 50-150



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**Analysis by LC MS MS - Quality Control**  
**US EPA Region 5 Chicago Regional Laboratory**

**Batch B100842 - \*\*\* DEFAULT PREP \*\*\***

Duplicate (B100842-DUP1)		Source: 1008016-01		Prepared: Aug-10-10		Analyzed: Aug-11-10						
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	
dioctyl sulfosuccinate	U	U		20.0	ug/L		U				200	

Surrogate: DOSS-D34      204      "      183.5      111      50-150



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**Notes and Definitions**

U Not Detected  
NR Not Reported

### Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Default Report (not modified)
			VERSION 6.04:2012
	RAM-DOSS	(Water)	Special Units: (ug/L)
	RAM-DOSS	(Water)	U-Flags used